Hiroshi INOUE*: Taxonomic miscellany on the Plagiochilaceae**

井上 浩*: ハネゴケ科の分類雑記**

1. **Acrochila caledonica** (Steph.) Inoue, comb. nov.

Basionym: *Plagiochila caledonica* Steph., Rev. Bryol. **35**: 32. 1908.

Synonym: *Plagiochila etesseana* Steph., Spec. Hepat. **6**: 152. 1918=*Acrochila etesseana* (Steph.) Schust., J. Hattori Bot. Lab. **26**: 285. 1936. *Plagiochila nigrescens* Steph., Spec. Hepat. **6**: 187. 1921. *Plagiochila rigidissima* Steph., Spec. Hepat. **6**: 207. 1921.

Spec. Exam. New Caledonia, sine loc. spec., leg. Le Rat no. 207, type (G); leg. Etesse no. 19, type of *P. etesseana* (G); leg. Le Rat no. 22, type of *P. nigrescens* (G); leg. Franc no. 47, type of *P. rigidissima* (G); leg. Franc, s. n., det. as *P. caledonica* by Stephani (FH).

Schuster (1963, annot. 208) placed *Plagiochila etesseana* Steph. in the genus *Acrochila*. However, apparently he overlooked *Plagiochila caledonia* Steph., which is an older taxon based upon the same species. Male plants were later described as *P. nigrescens*.

2. **Chiastocaulon dendroides** (Nees) Carl, Flora **126**: 58. 1931.

Basionym: *Jungermannia dendroides* Nees, Hepat. Javan. 77. 1830.

Synonym: *Plagiochila dendroides* (Nees) Lindenb., Monogr. Hepat. gen. *Plagiochilae* 146. 1840-44. *Plagiochila flagellifera* Steph., Spec. Hepat. **6**: 155. 1918 =*Chiastocaulon flagellifera* (Steph.) Carl, Flora **126**: 60. 1931, syn. nov. *Plagiochila minutifolia* Steph., Spec. Hepat. **6**: 185. 1921=*Chiastocaulon minutifolia* (Steph.) Carl, Flora **126**: 60. 1931, syn. nov. *Plagiochila dendroides* (Nees) Lindenb. var. *subtridentata* Schiffn., Denks. Math.-Nat. Klas. Kais. Akad. Wiss. **70**: 59. 1900, syn. nov.

Sec. Exam. New Caledonia; Pic. Penbai, 944 m. alt., leg. Le Rat no. 327, type of *Plagiochila minutifolia* (G); leg. Le Rat no. 339, det. as *P. minutifolia* by Stephani (G); Mt. Mou, 1200 m. alt., leg. Franc, s. n., det. as *P. flagellifera* by Stephani (G). Java; Prov. Preanger, in monte ignivomo Papandayan, ad arbores in silva, alt. 1550 m., leg. Schiffner in Iter. Indicum 1893/94 no. 741, type of *P.*

* Division of Cryptogams. National Science Museum, Ueno, Tokyo. 国立科学博物館植物第二研究室
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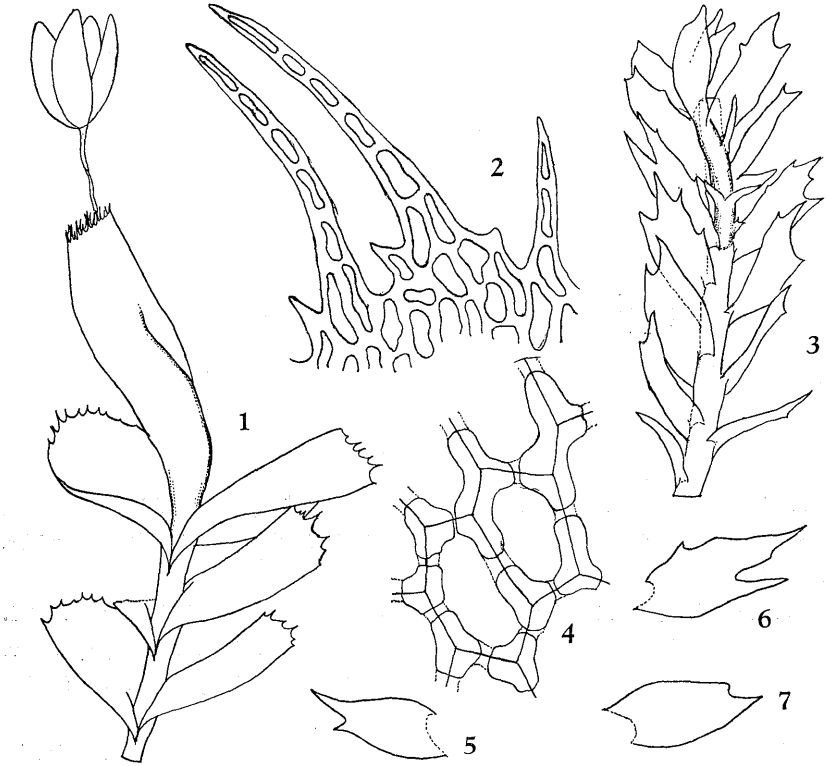

Fig. 1. *Plagiochilion bryhnii* (Steph.) Inoue (1-2) and *Acrochila caledonica* (Steph.) Inoue (3-7). 1. Part of plant with perianth, dorsal view. ×10. 2. Part of perianth mouth. ×160. 3. Part of plant. showing postical branch, postical view. ×10. 4. Cells from the leaf-middle, ×300. 5-7. Leaves. ×10. Fig. 1-2 were based on Allioni no. 250 and others on Le Rat, s.n.

dendroides var. *subtridentata* (W).

I was not able to locate the type specimen of *Plagiochila flagellifera*, which was collected by Le Rat in New Caledonia. Considering the variability of this species, I think that *P. flagellifera* cannot be distinguished from *Chiastocaulon dendroides*. Carl (1931) cited "*Chiastocaulon dendroides* var. *tridentata* Schiffn." and this was erroneously included in Bonner (1963) as "var. *tridentata* (Schiffner) Carl, type: sub. *Plagiochila*." Schiffner's var. *tridentata* was apparently undescribed and I was not able to locate any specimen of this variety.

Previously (Inoue 1958), I considered *Chiastocaulon* as a subgenus of *Plagiochila*. However, as Schuster (1959) emphasized, the uni-spiral elaters constantly postical

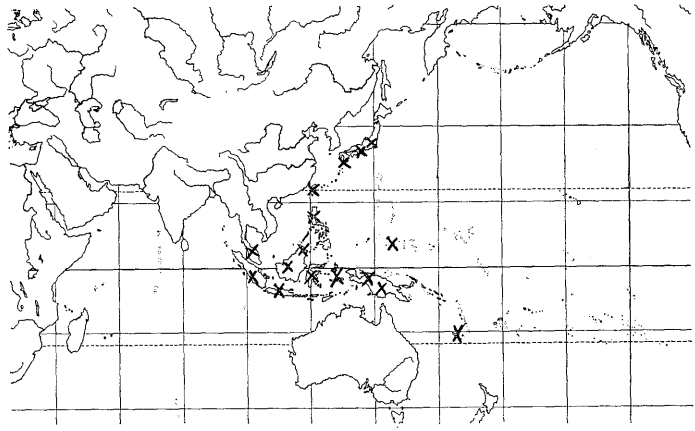

Fig. 2. Distribution of *Chiastocaulon dendroides* (Nees) Carl.

intercalary branching combined with terminal *Frullania*-type branching are strong generic characteristics. *Chiastocaulon* is comprised of a single species, *C. dendroides*, whose known distribution is indicated in Fig. 2.

3. **Plagiochilion bryhnii** (Steph.) Inoue, J. Hattori Bot. Lab. **27**: 61. 1964.

Synonym: *Plagiochila paludosa* Steph., Spec. Hepat. **6**: 195. 1921, syn. nov. *Plagiochila sacramenti* Stephan., Spec. Hepat. **6**: 222. 1921, syn. nov. For further syn. see Inoue (1964).

Spec. Exam. New Granada, sine loc. spec., leg. Wallace s. n., as *Plagiochila zygophylla* Spruce (NY). Ecuador, ad truncos in silva "Sacramento", V. Bomboiza-Gnolaginza, 900—1000 m. alt., leg. Allioni no. 250, type of *Plagiochila sacramenti* (G); Gualanguiza (dit Cuenca), in paludoris as scaturigines fluvii, Rio Saldo, leg. Allioni s. n. in hb. Levieri no. 6358, type of *Plagiochila paludosa*(G); Gualaguiza, in truco arboreis silvae supre antig, rus "G. Veza", leg. Allioni s. n. in hb. Levieri no. 6371, det. as *Plagiochila paludosa* by Stephani (G).

The type of *P. bryhnii* and other specimens so far examined were sterile except for the type of *P. sacramenti* which provided well developed perianths and sporophytes. The following description supplements Inoue (1964).

Female inflorescences terminal on stem, without innovation; bracts similar to the leaves but a little larger and more densely toothed along the margins. Perianth long exserted, cylindrical, about 2.6 mm long and 1mm wide at the mouth; mouth densely ciliate-dentate, nearly truncate. Sporangium oblong, valves about 0.2 mm

and 1.2 mm long; spores globose, about 17μ, punctate, elaters bispiral, 6-7μ wide.

4. Plagiochilion oppositus (R. B. et N.) Hatt., Biosphaera **1**: 7. 1947.

Synonym: *Plagiochila adelanthoides* Pears. in Setchell, Dept. Marine Biol. Carnegie Instit. Washington **20**: 135. 1924, syn. nov.

Spec. Exam. Tutuila Isl., trail to Mt. Matafao, leg. Collarino in hb. Setchell no. 1282a-lectotype (UC), no. 1278 (UC).

I was not able to find any reliable difference between *Plagiochila adelanthoides* and *Plagiochilion oppositus*. Pearson (in Setchell 1924) noted that the smaller marginal teeth of the leaves and straight or slightly incurved antical base of the leaves are different from those of *P. oppositus*, but these feature are not constant in this variable species (and even in Setchell's specimens!) and they have little taxonomic value here.

5. **Plagiochilion fimbriatus** (Mitt.) Inoue, J. Hattori Bot. Lab. **27**: 57. 1964.

Spec. Exam. Thailand; Chauburi, Pong Nam Rawn, Kho Nam Khieo, 1700 m. alt., on tree trunk, leg. T. Smitinand no. 5507 (L, TNS).

This is the first collection since the type (only 2 plants!) was collected at a slightly lower altitude in the Khasia Mountains by Hooker and Thomson. The well developed perianths on the Smitinand collection agree exactly with the type and confirm this new addition to the flora of Thailand.

6. **Plagiochila spinulosa** (Dicks.) Dum., Rec. d'Obs. 15. 1835.

Synonym: *Plagiochila ambagiosa* Mitt., Trans. Linn. Soc. London, Bot. **3**: 195. 1891, syn. nov.

Spec. Exam. Ireland; Bantry, leg. Hutchinson no. 39, type of *P. ambagiosa* (NY).

Plagiochila ambagiosa has been known only from the type collected in Ireland by Miss Hutchinson. Müller (1956) stated "Die Pflanze macht den Eindruck einer guten Arten" and compared it with *P. spinulosa*, which is known to be extremely variable in Europe. Although Müller separated *P. spinulosa* from *P. ambagiosa* by (1) leaf form and (2) marginal dentation, these features are very plastic in *P. spinulosa* and some leaves can be found to agree with *P. ambagiosa*. I found that the type of *P. ambagiosa* differs in being somewhat robust and having more or less imbricate leaves, whereas *P. spinulosa* is usually smaller with distant to approximate leaves. However, these features are never of specific value in *Plagiochila*. After studying a large series of collections from Europe, I have concluded that the

wide and two taxa cannot be specifically distinct.

Additional Notes

The following species described by Stephani under the genus *Plagiochila* are to be transferred from the Plagiochilaceae to other families:

1. **Plagiochila wakawana** Steph., Spec. Hepat. **6**: 242. 1922.

I found the type specimen of this species to be **Chiloscyphus polyanthus** (L.) Corda! (Lophocoleaceae). *P. wakawana* was reported from Japan twice after Stephani, i. e. by Ihshiba (1935) and Kamimura (1952). I was not able to locate the specimen cited by Ihshiba, but Kamimura's report was based on *Plagiochila satoi* (see Inoue, 1958).

Spec. Exam. Japan, sine loc. spec., leg. Wakawa no. 196, 197-lectotype of *P. wakawana* (G).

2. **Plagiochila subopposita** Steph., Spec. Hepat. **6**: 214, 1921 and **Plagiochila ligulifolia** Steph., Spec. Hepat. **6**: 176. 1918.

After my manuscript of the monograph of *Syzygiella* (Lophoziaceae, Inoue 1966) was submitted to the editor of Hattori Botanical Laboratory, I was able to study the type specimens of the above cited two taxa, which are indistinguishable from **Syzygiella variegata**!

Spec. Exam. (1) Java; Gedeh-Geger-Bintang, 1500 m. alt., leg. Fleischer no. 52, type of *P. ligulifolia* (G). (2) New Caledonia; Pic Pembai, 944 m. alt, leg. Le Rat no. 337, type of *P. subopposita* (G).

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ハネゴケ科のモノグラフ研究中に異名におとされるもの，学名の変更を要するもの，およびハネゴケ科から除外すべきものなどをとりまとめて記した。*Acrochila* はハネゴケ属 *Plagiochila* から最近分離されたものであるが，現在までに3種が知られており，ニュージーランド，タスマニア，ニューカレドニアに分布する。私は以前 *Chiastocaulon* を *Plagiochila* に含めたが，これはやはり独立属としておいた方がよいと考えるに到った。この属は1種 *C. dendroides* を含み，図2に示すような分布をしている。*Plagiochilion* についてはすでにモノグラフを発表したが（服部植物研究所報告 27 号，1964），*Plagiochila* の名で記載された3種が更に *Plagiochilion* の種の異名となる。イギリスで永い間1回しか採集されたことのない *Plagiochila ambagiosa* はヨーロッパに広く分布して変化に富む *P. spinulosa* の極端な変化形である。

ハネゴケ科から除外するものには日本から記載された *Plagiochila wakawana* が Lophocoleaceae トサカゴケ科の *Chiloscyphus polyanthus* の異名に，ニューカレドニアの *Plagiochila subopposita* とジャワの *Pl. ligulifolia* が Lophoziaceae イチョウウロコゴケ科の *Syzygiella variegata* の異名となる。いずれも有名な F. Stephani の種である。

○高等植物分布資料 (53) Materials for the distribution of vascular plants in Japan (53)

○タカネソヨゴ *Ilex pedunculosa* Miq. var. *senjoensis* Hara 暖帯を主生育地とするソヨゴが伊那谷を北上し，赤石山脈の針葉樹林帯下半部にまで行きついた一形が伏茎狭葉性のタカネソヨゴである。これまでは原採地の仙丈岳しか報告がなかったようであるが（北緯 35°43′），信州南安曇郡穂高町の中房温泉（飛騨山脈燕岳への登山路上に当る）約 1460 m の地にも産する（北緯 36°23′50″）。横内 斎氏の 1966 年 11 月 3 日の採集品がそれで，温泉湧出口の附近に群生していたという。

○オオシロガヤツリ *Cyperus nipponicus* Fr. et Sav. var. *spiralis* Ohwi 従来本州西半と四国とに知られたアオガヤツリの一型であるが，長野市若槻の田子池（東経 138°14′）の縁に見出された。横内氏の 1966 年 10 月 26 日の採集品である。此所には明治年間から北地性のエゾノミズタデを産することが知られていたが，ハンゲショウのような暖地性のものが共存するので面白いと思っていた。

（東京都立大学 牧野標本館 水島正美）